HD Conference Dome

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HD ONVIF

- HD 1080p and 720p resolutions
- 160x zoom (10x optical, 16x digital)
- Industry standard HD-SDI output
- Control and configuration via Ethernet
- Screen line option for displaying delegate names up to 16 characters

The HD Conference Dome is an extremely compact and easy to install PTZ camera with an industry standard HD-SDI output for superb HD quality video.

The camera provides complete network-based control of all dome functionality including pan/tilt/zoom operation, presets as well as web-based configuration of all dome settings.

Notice

Use of Camera

The HD Conference Dome is designed for use in conferencing applications only.

HD Conference Dome highlights

With a dome diameter of only 5.04 inches (12.8 cm), the HD Conference Dome is nearly 50% smaller than the Bosch AutoDome. These compact dimensions make the HD Conference Dome ideal for conference environments.

Despite its compact design, the HD Conference Dome delivers state-of-the-art technology and features that are rare to most compact PTZ cameras. Its variable pan and tilt speeds and AutoPivot ensure optimal camera control and viewing at all zoom levels. The high-performance 160x (10x optical/16x digital) zoom autofocus camera incorporates the latest digital imaging technology with excellent sensitivity and resolution. With 64 user-defined presets the HD Conference Dome is not small on features.

The HD Conference Dome maximizes your conference investment by integrating with Bosch conference systems including the DCN Next Generation conference system, as well as the DCN Wireless discussion system.

The HD Conference Dome is simple to install and use; available with surface, wall, recessed, and pipe mount options.

System overview

High-performance 160x PTZ day/night camera

The HD Conference Dome PTZ camera has a 1/2.5-inch progressive scan CMOS sensor. With up to 1080p resolution and sensitivity to below 1.0 lux, the HD Conference Dome offers exceptional performance at a very affordable price.

Pan and tilt preset repeatability are accurate to within ±0.1 degrees to ensure that the correct scene is captured every time. The HD Conference Dome delivers variable pan/tilt speeds from a crawl speed of only 1 degree per second up to an ultra-quick 120 degrees per second. The dome is capable of pan speeds of 360 degrees per second and tilt speeds of 100 degrees per second between prepositions. The HD Conference Dome provides a tilt range of 0 to 94 degrees, and a pan range of up to 360 degrees continuous rotation.
The AutoScaling (proportional zoom) and AutoPivot (automatically rotates and flips the camera) features ensure optimal control.

Industry standard HD-SDI output
The HD Conference Dome makes use of an industry standard HD-SDI output for superb HD quality video. The HD Conference Dome supports 1080p30 and 720p60 resolutions for 50 Hz and 60 Hz models at 16:9 aspect ratio.

Multiple video streams
Next to the HD-SDI output, Bosch's innovative Quad-streaming feature enables the HD Conference Dome to deliver three H.264 streams together with an M-JPEG stream in full and reduced bandwidth modes for monitoring purposes.

Image stabilization
Image stabilization algorithms included with the HD Conference Dome reduces camera shake in both the vertical and horizontal axis, resulting in exceptional image clarity. Bosch's unique image stabilization solution does not reduce camera sensitivity, unlike competitive systems.

Reliability
As with all Bosch products, the HD Conference Dome has been subjected to the industry's most comprehensive and demanding battery of endurance tests such as HALT (highly accelerated life testing) to make sure it will hold up through years of use. And of course, it comes with Bosch's industry-leading 3-year warranty.

Functions

The following are some of the features that make the HD Conference Dome the perfect fit for a variety of conference applications.

Network-based control and configuration
The HD Conference Dome enables full camera control and configuration capabilities over the network. Operators or technicians can control camera pan/tilt/zoom operation, and presets virtually anywhere without need for additional wiring.

The embedded web server lets the installer access all the user settings, make camera adjustments, and update firmware via a standard web browser or via the Bosch Video Management System.

Device management
Simple Network Management Protocol (SNMP) support facilitates the remote monitoring and management. The HD Conference Dome provides full support for SNMP v3.

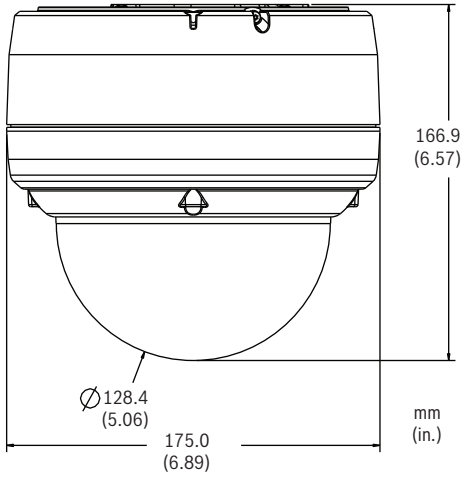
Ease of installation and servicing
The HD Conference Dome has been designed for quick and easy installation. The dome comes fully assembled and ready for surface mount applications. Also available are wall, recessed, and pipe mounting kits which allow the HD Conference Dome to be easily adapted for the individual site requirements.

Power over Ethernet
Power for indoor camera models may be supplied via a Power over Ethernet Plus (PoE+, IEEE 802.3at, class 4) compliant network cable connection. With this configuration, only a single cable connection is required to power and to control the camera while also monitoring images from the camera via the web server. An additional coax cable is required for the video from the HD-SDI output.

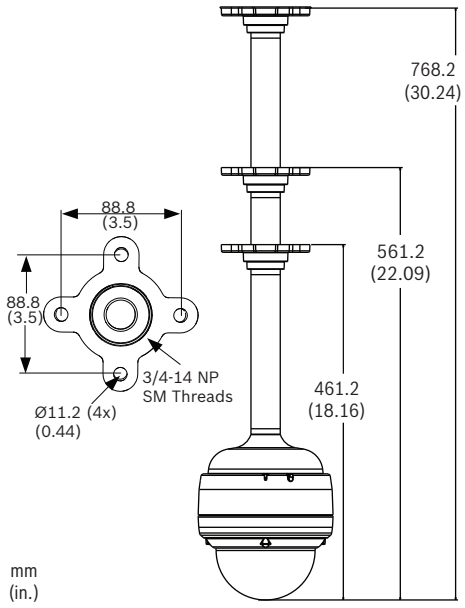
Certifications and approvals

Electromagnetic Compatibility (EMC)	Complies with FCC Part 15, ICES-003, and CE regulations
Product Safety	Complies with CE regulations, UL, CSA, EN, and IEC Standards

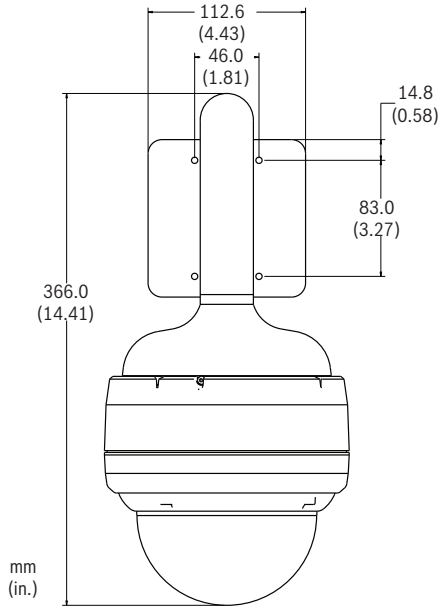
Installation/configuration notes



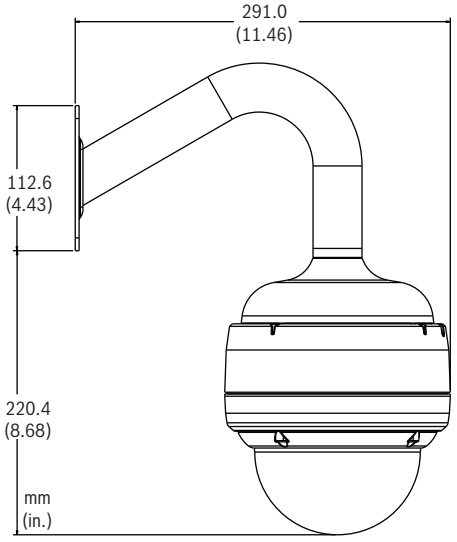
HD Conference Dome Dimensions

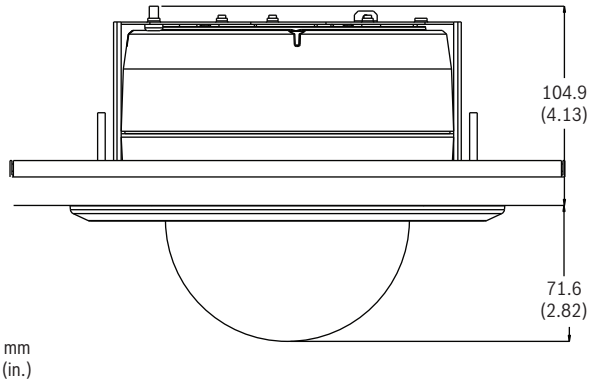


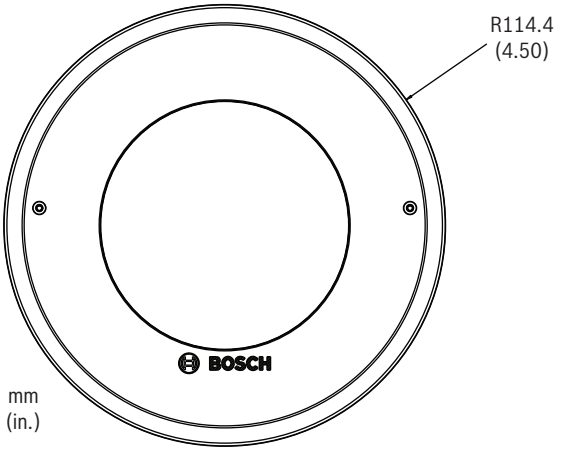
Pipe Mount Dimensions



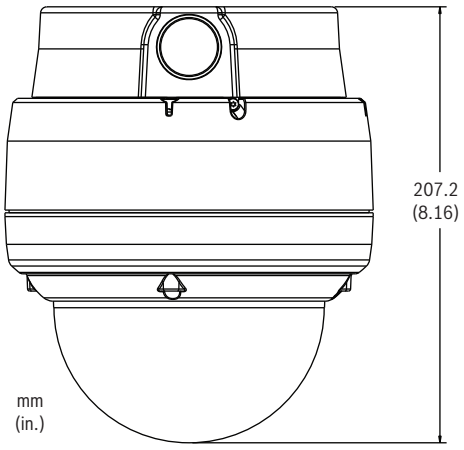
Wall Mount Dimensions







In-Ceiling / Recessed Mount Dimensions



Surface Mount Dimensions

Technical specifications

10x HD Camera

Imager	1/2.5 inch progressive scan CMOS	
Number of Pixels	2.1 Megapixels	
Aspect Ratio	16:9	
Lens	10x optical zoom (6.3 to 63 mm) (F1.8/F2.5 to close)	
Focus	Automatic with manual override	
Iris	Automatic with manual override	
Field of View	Horizontal: 5.5° to 50.6° Vertical: 3.1° to 29.3°	
Automatic Gain Control	Normal, Medium, High, Fixed	
Synchronization	Internal	
Aperture Correction	On/Off	
Digital Zoom	16x	
Sensitivity(typical)[1]	**30 IRE**[2]	**50 IRE**[2]
Day Mode		
SensUP Off	1.2 lx	2.0 lx
SensUP On (64x)	0.038 lx	0.063 lx
Night Mode		
SensUP Off	0.06 lx	0.1 lx
SensUP On (64x)	0.0018 lx	0.0031 lx
Electronic Shutter Speed (AES)	1x to 64x; 1/50 (1/60) to 1/10000	
Signal to Noise Ratio	> 50 dB (AGC off)	
Backlight Compensation	On/Off	
White Balance	ATW, Indoor, Outdoor, AWB Hold, Extended ATW, Manual (adjustable R and B signals in Manual mode)	
Day/Night	Monochrome, Color, Auto	

1. F1.8, 1/30 (1/25) shutter, maximum AGC.
2. Tinted bubble adds 0.8 f-stop loss.

Software Control

Camera Configuration	Via Internet Explorer Web browser version 7.0 or later or Bosch Configuration Manager
Software Update	Firmware upload

Video

HD-SDI	
Standards	SMPTE 292M
Resolutions (H x V) and Frame Rates	
• Full HD/1080p	1920 x 1080, 30 ips
• HD/720p	1280 x 720, 60 ips
Data Rate	1.5 Gbit/s
Video Delay	10 ms

Network Stream

Standards	H.264 (ISO/IEC 14496-10), M-JPEG, JPEG
Streaming	Individually configurable streams in H. 264 and M-JPEG, configurable frame rate and bandwidth;
• 1080p30	One (1) H.264 1080p30 stream plus one (1) M-JPEG and one (1) I-frame stream
• 720p60	One (1) H.264 720p60 stream plus one (1) M-JPEG and one (1) I-frame stream
GOP Structure	IP, IBP, IBBP
Data Rate	9.6 kbps to 6 Mbps
Overall IP Delay	240 ms
Resolutions (H x V) and Frame Rates	
Stream 1	
• Full HD/1080p	1920 x 1080, 30 ips
• HD/720p	1280 x 720, 60 ips
Stream 2[3]	
• SD/480p (WVGA)[4]	854 x 480, 30 ips

• SD/240p (WQVGA)[4]	432 x 240, 30 ips

3. Stream 1 must be set to 720p at 30 ips.

4. Images displayed in 16:9 aspect ratio.

Network	
Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/V3, ICMP, ARP, SMTP, SNTP, SNMP, RTSP, 802.1x, iSCSI, DynDNS, UPnP
NTCIP Protocols	
• CCTV Camera Control	NTCIP 1205
• Application Layer	SNMP per NTCIP 1101:1996 & NTCIP 2301
• Transport/Network Layers	TCP/IP per NTCIP 2202:2001
• Sub-network Layer	PMPP (Point to Multi-Point Protocol) per NTCIP 2101:2001 & NTCIP 2102:2003
Ethernet	10-Base T/100 Base-TX, auto-sensing, half/full duplex, RJ45
PoE+	IEEE 802.3at, class 4

Mechanical/Electrical

Pan Range	0–360° continuous
Tilt Angle	0–93.6°
Variable Speed	Pan: 1°/s to 120°/s Tilt: 1°/s to 100°/s
Pre-position Speed	Pan:360°/s Tilt: 100°/s
Preset Accuracy	± 0.1° typical
Rated Voltage	24 VAC ± 10%, 50/60 Hz or PoE+ (IEEE 802.3at, class 4)
Power Draw	17 W typical

Environmental

Operating Temperature	–10°C to 30°C (14°F to 86°F)
Storage Temperature	–20°C to 60°C (–4°F to 140°F)
Operating Humidity	0% to 90% relative, non-condensing

Miscellaneous

Pre-positions	64
Screen Line	Up to 16 characters (only standard ASCII character set can be used)
Supported Languages	English, German, Dutch, French, Italian, Spanish, Portuguese, Polish, Russian, Chinese, and Japanese

User Connections

Power	
• PoE+, Indoor Models	RJ-45 100 Base-TX Ethernet PoE+ IEEE 802.3at, class 4
• Camera, All Models	24 VAC, 50/60 Hz
Video	BNC with HD-SDI output
Control	RJ-45 100 Base-TX Ethernet

Construction

Size (Diameter x Height)	153.0 x 133.0 mm (6.02 x 4.61 in.)
Bubble Size	128.0 mm (5.04 in.)
Weight	1.92 kg (4.24 lb)
Material	
• Housing	Cast aluminum
• Bubble	Acrylic
Color	White (available in all regions) or Charcoal (available only in the Europe, Middle East, and Africa region)

Ordering information

VCD-811-IWT HD Conference Dome, White, with Tinted Bubble
White, 1080p HD indoor camera for use with video conference system, with tinted bubble
Order number **VCD-811-IWT**

VCD-811-ICT HD Conference Dome, Charcoal, with Tinted Bubble
Charcoal, 1080p HD indoor camera for use with video conference system, with tinted bubble (available only in the Europe, Middle East, and Africa region)
Order number **VCD-811-ICT**

Accessories

VJR-A3-IC AutoDome Junior HD Indoor In-ceiling Mount
Order number **VJR-A3-IC**

VJR-A3-SP In-ceiling Support Kit for AutoDome 700/800 Series and AutoDome Junior HD
Suspended ceiling support kit for AutoDome 700 and 800 Series and AutoDome Junior HD In-ceiling mounts
Order number **VJR-A3-SP**

VJR-A3-IC54 AutoDome Junior HD Plenum-rated In-ceiling Mount
Order number **VJR-A3-IC54**

VEZ-A2-JC Surface Mount Adapter
Charcoal adapter for AutoDome Junior surface installations
Order number **VEZ-A2-JC**

VEZ-A2-JW Surface Mount Adapter
White adapter for AutoDome Junior surface installations
Order number **VEZ-A2-JW**

VEZ-A2-PC AutoDome Junior Pipe Mount
Charcoal
Order number **VEZ-A2-PC**

VEZ-A2-PW AutoDome Junior Pipe Mount
White
Order number **VEZ-A2-PW**

VEZ-A2-WC AutoDome Junior Wall Mount
Charcoal
Order number **VEZ-A2-WC**

VEZ-A2-WW AutoDome Junior Wall Mount
White
Order number **VEZ-A2-WW**

VJR-SBUB2-CL AutoDome Junior HD Clear Bubble, Indoor
Order number **VJR-SBUB2-CL**

VJR-SBUB2-TI AutoDome Junior HD Tinted Bubble, Indoor
Order number **VJR-SBUB2-TI**

UPA-2450-60 Power Supply, 120 V, 60 Hz
Indoor, 120 VAC, 60 Hz In; 24 VAC, 50 VA Out
Order number **UPA-2450-60**

UPA-2450-50 Power Supply, 220 V, 50 Hz
Indoor, 220 VAC, 50 Hz In; 24 VAC, 50 VA Out
Order number **UPA-2450-50**

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